L Number	Hits	Search Text	DB	Time stamp
1	32	kubota-teruo.in.	USPAT,	2003/04/25 09:55
	•		US-PGPUB,	
			ЕРО, ЛРО,	
,			DERWENT	
2	34	takaya-hitoshi.in	USPAT;	2003/04/25 09:56
			US-PGPUB,	
			ЕРО; ЛРО;	• '
			DERWENT	•
3	680	yamashita-hiroyuki.in.	USPAT;	2003/04/25 09:57
			US-PGPUB;	
			ЕРО, ЛРО;	
			DERWENT	r
4	11	detergent same particle adj growth	USPAT;	2003/04/25 10:03
			US-PGPUB;	
		,	ЕРО, ЛРО,	
			DERWENT	
5	12	510/\$.ccls. and particle adj growth	USPAT;	2003/04/25 10:07
			US-PGPUB;	
			ЕРО; ЛРО;	
			DERWENT	
6	19	agitation adj3 impeller same paddle	USPAT;	2003/04/25 10:09
	:	•	US-PGPUB,	
			ЕРО, ЈРО,	
			DERWENT	
7	214	510/\$.ccls. and mix\$3 same paddle	USPAT;	2003/04/25 12:03
			US-PGPUB;	
			ЕРО, ЈРО,	
			DERWENT	2002/04/25 12 01
8	33	(spray adj1 dried or base) same (absorb\$ or absorption or adsorb\$3 or	USPAT;	2003/04/25 13:01
		spray\$3) near5 (nonionic or eo or neodol or ethoxy\$5 or alkoxy\$5) same	US-PGPUB;	
		(particle or average or mean) adj3 size same bulk adj1 densit\$3	EPO, JPO, DERWENT	
	25	(approx adil dried or base) same (absorbe or absorption or adap-be)	USPAT;	2003/04/25 12:10
9	25	(spray adj1 dried or base) same (absorb\$ or absorption or adsorb\$3 or spray\$3) near5 (nonionic or eo or neodol or ethoxy\$5 or alkoxy\$5) same	USPAT; US-PGPUB;	2003/04/25 13:10
		(particle or average or mean) adj3 size same bulk adj1 densit\$3 same	EPO; JPO;	
		(dust\$3 or coat\$3 or spray\$3) same (fine or powder or zeolite or silica)	DERWENT	
10	0	mix\$ same 3 impeller same paddle same detergent	USPAT;	2003/04/25 13:15
10	U	litiva same ambener same badare same dererBent	US-PGPUB;	2003/04/23 13.13
			ЕРО; ЛРО;	
			DERWENT	
11 :	. 6	impeller same (paddle or ribbon or screw) same detergent	USPAT;	2003/04/25 13:17
*	U	imperior same (pagate or rivoon or serew) same detergent	US-PGPUB;	2005/04/25 15:17
			EPO; JPO;	
			DERWENT	

	U	1	Document ID	Issue Date	Pages	Title	Current OR
1	Ø		US 20020155977 A1	20021024	32	Detergent particles	510/446
2	⊠		US 6534474 B1	20030318		Surfactant composition	510/536
3			US 4871467 A	19891003		Non-sedimenting liquid detergent compositions resistant to shear	510/325
4	⊠ .		US 4659497 A	19870421		Liquid detergent compositions	510/418
5	Ø	<u> </u>	US 4515704 A	19850507		Pourable non-sedimenting aqueous based detergent composition having an organic lamellar structural component	510/418
6			JP 2000336398 A	20001205		PRODUCTION OF DETERGENT PARTICLES	•.
7	Ø		EP 1104804 A1	20010606		METHOD FOR PRODUCING SINGLE NUCLEUS DETERGENT PARTICLES	- ,
8			EP 1041139 A1	20001004		PROCESS FOR PRODUCING DETERGENT PARTICLES	
9			WO 200023560 A	20000427		Simple and efficient process for producing detergent particles comprises mixing base granules and a surfactant composition, and mixing the obtained mixture with a fine powder	*
10			US 3865754 A	19750211		Crystallisation seed-contg detergent compsn - also contains aluminate and precipitant for free metal ions	
11	Ø		JP 48061616 A	N/A		Emulsion for injection prodn - having high oxygen carrying ability	

	Current XRef	Retrieval Classif	Inventor	s	C	P	2	3	4	5
1			Kubota, Teruo et al.							
2	510/224; 510/351; 510/356; 510/357; 510/446; 510/475; 510/492		Okada, Kyoko et al.							
3	510/337; 510/340; 510/341; 510/418		Akred, Brian J. et al.							
4	510/320; 510/325; 510/340; 510/424; 510/428; 510/429; 510/430		Akred, Brian J. et al.							
5 .	510/320; 510/325; 510/340		Akred, Brian J. et al.							
6			KUBOTA, TERUO et al.							
7			KUBOTA, TERUO et al.							
8			KUBOTA, TERUO et al.							
9			KUBOTA, T et al.			٠				
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	U	1	Document ID	Issue Date	Pages	Title	Current OR
1			US 5100510 A	19920331	11	Apparatus for manufacturing high bulk density particulate fabric softening synthetic anionic organic detergent compositions	159/6.3
2			US 5080820 A	19920114	10	Spray dried base beads for detergent compositions containing zeolite, bentonite and polyphosphate	510/443
3			US 5024778 A	19910618	9	Spray dried base beads for detergent compositions containing zeolite, bentonite and polyphosphate	510/349
4			US 4894117 A	19900116	11	Process for manufacturing high bulk density particulate fabric softening synthetic anionic organic detergent compositions	159/49
5			US 4853259 A	19890801	7	Process for manufacturing particulate built nonionic synthetic organic detergent composition comprising polyacetal carboxylate and carbonate and bicarbonate builders	510/441

	Current XRef	Retrieval Classif	Inventor	s	C	P	2	3	4	5
1	159/11.2; 159/13.4; 159/16.1; 159/9.2; 209/11; 209/3; 34/136; 34/60; 366/144; 366/24		Bianchi, Antonio et al.							
2	252/179; 510/323; 510/392; 510/438; 510/532		Grecsek, John J.	×						
3	252/179; 510/323; 510/443; 510/532; 510/533	•	Grecsek, John J.	Ø						
4	159/13.4; 159/16.1; 159/6.1; 159/6.3; 34/136; 34/58; 510/334; 510/349; 510/357; 510/438; 510/446		Bianchi, Antonio et al.	×						
5	427/221; 510/349; 510/443; 510/476; 510/479		Taha, Riad A.	⊠						

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1	US 5100510	
2	US 5080820	-
3	US 5024778	· 🗆
4	US 4894117	
5	US 4853259	

	U	1	Document ID	Issue Date	Pages	Title	Current OR
6			US 4853143 A	19890801		Bleach activator compositions containing an antioxidant	510/312
7	⊠		US 4828721 A	19890509	15	Particulate detergent compositions and manufacturing processes	510/308
8			US 4806261 A	19890221	13	Detersive article	510/296
9			US 4795584 A	19890103	9	Laundry compositions	510/277
10			US 4725455 A	19880216	8	Process for manufacturing particulate built nonionic synthetic organic detergent composition comprising polyacetal carboxylate and polyphosphate builders	510/443

	Current XRef	Retrieval Classif	Inventor	s	C	P	2	3	4	5
6	252/182.29; 252/186.25; 252/186.31; 252/186.38; 252/404; 510/306; 510/307; 510/313; 510/314; 510/376; 510/441; 510/442; 510/444		Hardy, Frederick E. et al.	Ó				Ó	<u>.</u>	. O
7	510/306; 510/307; 510/326; 510/334; 510/443; 510/444; 510/507		Bollier, Marc M. P. et al.	C		,				
8	206/.5; 510/299; 510/300; 510/323; 510/324; 510/356; 510/471; 510/475		Ciallella, Loretta K. et al.	×						
9	510/295; 510/297; 510/299; 510/300; 510/306; 510/504; 510/528		Ross, Anne M. et al.	×						
10	427/220; 427/221; 510/320; 510/323; 510/324; 510/326; 510/349; 510/476		Taha, Riad A.	×						

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6		
7	US 4828721	
8	US 4806261	
9	US 4795584	
10	US 4725455	

	U	1	Document ID	Issue Date	Pages	Title	Current OR
11			US 4720399 A	19880119	8	Process for manufacture of particulate built nonionic synthetic organic detergent composition comprising polyacetal carboxylate and carbonate and bicarbonate builders	510/443
12			US 4666740 A	19870519	9	Phosphate-free concentrated particulate heavy duty laundry detergent	510/356
13			US 4666738 A	19870519	8	Method for making a phosphate containing concentrated heavy duty particulate laundry detergent	510/356
14			US 4664950 A	19870512	9	Concentrated heavy duty particulate laundry detergent	510/356
15			US 4664817 A	19870512	12	Free flowing high bulk density particulate detergent-softener	510/331
16			US 4663194 A	19870505	9	Phosphate-free concentrated particulate heavy duty laundry detergent	510/356

	Current XRef	Retrieval Classif	Inventor	s	C	P	2	3	4	5
11	427/220; 427/221; 510/320; 510/323; 510/324; 510/326; 510/349; 510/476		Taha, Riad A.	Ø						,
12	427/214; 427/215; 427/220; 510/324; 510/351; 510/441; 510/443		Wixon, Harold E.	×						
13	427/214; 427/215; 427/220; 510/324; 510/441; 510/443		Wixon, Harold E.	Ø						
14	252/383; 252/384; 427/214; 427/215; 427/220; 510/324; 510/351; 510/441; 510/443		Wixon, Harold E.	×,						
15	427/214; 427/215; 427/220; 510/438; 510/441; 510/504		Wixon, Harold E.	⊠						·
16	427/214; 427/215; 427/219; 427/220; 510/324; 510/351; 510/441; 510/443		Wixon, Harold E.	×						

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11	US 4720399	
12	US 4666740	
13	US 4666738	
14	US 4664950	
15	US 4664817	
16	US 4663194	

	U	1	Document ID	Issue Date	Pages	Title	Current OR
17			US 4569773 A	19860211	12	Particulate fabric softening detergent composition	510/327
18	⊠		US 4472287 A	19840918		Particulate fabric softening composition, fabric softening detergent useful for hand washing laundry and process for manufacture and use thereof	510/292
19			US 4462804 A	19840731	13	High bulk density particulate heavy duty laundry detergent	8/137
20			US 4457854 A	19840703	12	High bulk density carbonate-zeolite built heavy duty nonionic laundry detergent	510/356
21			US 4411809 A	19831025	9	Concentrated heavy duty particulate laundry detergent	510/324
22			US 4399048 A	19830816	11	High bulk density particulate heavy duty laundry detergent	510/323
23			US 4368134 A	19830111	1-1	Method for retarding gelation of bicarbonate-carbonate-zeolite-silicate crutcher slurries	510/532

	Current XRef	Retrieval Classif	Inventor	S	С	P	2	3	4	5
17	510/292; 510/326; 510/334; 510/443; 510/444; 510/491; 510/507; 510/515		Ramachandran, Pallassana N. et al.	⊠						
18	510/294; 510/324; 510/334; 510/443; 510/444; 510/491; 510/515		Ramachandran, Pallassana N. et al.							
19	510/323; 510/324; 510/349; 510/443; 510/452; 510/532		Gangwisch, William J. et al.	⊠						
20	510/323; 510/443; 510/507		Gangwisch, William J. et al.	Ø						
21	252/179; 252/383; 252/385; 510/326; 510/349; 510/356; 510/441; 510/443		Wixon, Harold E.	×						
22	510/324; 510/326; 510/356; 510/443; 510/507		Gangwisch, William J. et al.	Ø						
23	252/179		Kaeser, James A.	×						

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17	US 4569773	
18		
19	US 4462804	
20	US 4457854	
21	US 4411809	<u> </u>
22	US 4399048	
23	US 4368134	

	U	1	Document ID	Issue Date	Pages	Title	Current OR
24			US 4347152 A	19820831	11	Phosphate-free concentrated particulate heavy duty laundry detergent	510/356
25			US 4339335 A	19820713	13	Free flowing high bulk density particulate detergent-softener	510/331
26			US 4264464 A	19810428	13	High bulk density particulate heavy duty laundry detergent	510/323
27			US 4260651 A	19810407	11	Phosphate-free concentrated particulate heavy duty laundry detergent	510/356
28			US 4248911 A	19810203	9	Concentrated heavy duty particulate laundry detergent	510/356
29			US 3971726 A	19760727	7	Process for lowering the bulk density of alkali making built synthetic detergent compositions	510/443

	Current XRef	Retrieval Classif	Inventor	S	С	P	2	3	4	5
24	23/313R; 252/179; 264/117; 510/349; 510/351; 510/441; 510/444		Wixon, Harold E.	×			·			
25	252/179; 510/324; 510/326; 510/441; 510/504		Wixon, Harold E.	×						
26	252/179; 427/220; 510/324; 510/326; 510/349; 510/356; 510/443		Gangwisch, William J. et al.	⊠						
27	23/313AS, 23/313R, 252/179, 252/383, 252/384, 252/385, 427/214, 427/215, 427/219, 427/220, 510/349, 510/441, 510/443, 510/507		Wixon, Harold E.							
28	427/214, 427/215; 427/220; 427/419.2; 510/324; 510/326; 510/349; 510/441; 510/443		Wixon, Harold E.	⊠ .						
29	510/454; 510/531		Smith, Jr., Frank R. et al.	×						

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24	US 4347152	
25	US 4339335	
26	US 4264464	
27	US 4260651	
28	US 4248911	
29	US 3971726	

	U	1	Document ID	Issue Date	Pages	Title	Current OR
30			US 3962149 A	19760608	9	Non-phosphate spray dried detergents containing dicarboxylic acid salts	510/283
31			US 3959445 A	19760525	11	Highly absorbent, low bulk density sodium silicate	423/332
32			DE 3684085 G	19870422	9	Low phosphate granular detergent compsn. prepn including post-dosing spray-dried poly:phosphate-contg. base powder with sodium sulphate	
33			US 4457854 A	19840703	12	Free flowing, phosphate-free heavy duty laundry detergent - comprising zeolite, carbonate, silicate base beads and absorbed nonionic detergent	

	Current XRef	Retrieval Classif	Inventor	s	C	P	2	3	4	5
30	510/320; 510/351; 510/361; 510/443		Chirash, William et al.	×						
31	1		Jayawant, Madhusudan D. et al.	×						
32			APPEL, P W et al.	×						
33			GANGWISCH, W J et al.	×						

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30	US 3962149	
31	US 3959445	
32	US 4923628	· 🗀
33	US 4457854	

	U	1	Document ID	Issue Date	Pages	Title	Current OR
1			US 5080820 A	19920114	10	Spray dried base beads for detergent compositions containing zeolite, bentonite and polyphosphate	510/443
2			US 5024778 A	19910618	9	Spray dried base beads for detergent compositions containing zeolite, bentonite and polyphosphate	510/349
3	×		US 4853143 A	19890801	,	Bleach activator compositions containing an antioxidant	510/312
4			US 4828721 A	19890509	15	Particulate detergent compositions and manufacturing processes	510/308
5			US 4806261 A	19890221	13	Detersive article	510/296
6			US 4795584 A	19890103	9	Laundry compositions	510/277

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5
1	252/179; 510/323; 510/392; 510/438; 510/532		Grecsek, John J.	⊠						
2	252/179; 510/323; 510/443; 510/532; 510/533		Grecsek, John J.	×						
3	252/182.29; 252/186.25; 252/186.31; 252/186.38; 252/404; 510/306; 510/307; 510/313; 510/314; 510/376; 510/441; 510/442; 510/444		Hardy, Frederick E. et al.							
4	510/306; 510/307; 510/326; 510/334; 510/443; 510/444; 510/507		Bollier, Marc M. P. et al.							
5	206/.5; 510/299; 510/300; 510/323; 510/324; 510/356; 510/471; 510/475		Ciallella, Loretta K. et al.							
6	510/295; 510/297; 510/299; 510/300; 510/306; 510/504; 510/528		Ross, Anne M. et al.	×						

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1	US 5080820	
2	US 5024778	
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4	US 4828721	
5	US 4806261	
6	US 4795584	

	U	1	Document ID	Issue Date	Pages	Title	Current OR
7			US 4666740 A	19870519	9	Phosphate-free concentrated particulate heavy duty laundry detergent	510/356
8			US 4666738 A	19870519	8	Method for making a phosphate containing concentrated heavy duty particulate laundry detergent	510/356
9			US 4664950 A	19870512	9	Concentrated heavy duty particulate laundry detergent	510/356
10		Ö	US 4664817 A	19870512	12	Free flowing high bulk density particulate detergent-softener	510/331
11	Π.		US 4663194 A	19870505	9	Phosphate-free concentrated particulate heavy duty laundry detergent	510/356
12			US 4462804 A	19840731	13	High bulk density particulate heavy duty laundry detergent	8/137
13			US 4457854 A	19840703	12	High bulk density carbonate-zeolite built heavy duty nonionic laundry detergent	510/356

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5
7	427/214; 427/215; 427/220; 510/324; 510/351; 510/441; 510/443		Wixon, Harold E.	⊠			,		. 🗆	
8	427/214; 427/215; 427/220; 510/324; 510/441; 510/443		Wixon, Harold E.	⊠						
9	252/383; 252/384; 427/214; 427/215; 427/220; 510/324; 510/351; 510/441; 510/443		Wixon, Harold E.	×						
10	427/214; 427/215; 427/220; 510/438; 510/441; 510/504		Wixon, Harold E.	⊠						
11	427/214; 427/215; 427/219; 427/220; 510/324; 510/351; 510/441; 510/443		Wixon, Harold E.	×						
12	510/323; 510/324; 510/349; 510/443; 510/452; 510/532	·	Gangwisch, William J. et al.	⊠				, 0		
13	510/323; 510/443; 510/507		Gangwisch, William J. et al.	⊠						.0

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7	US 4666740	
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9	US 4664950	
10	US 4664817	
11	US 4663194	
12	US 4462804	
13	US 4457854	

	U	1	Document ID	Issue Date	Pages	Title	Current OR
14			US 4411809 A	19831025	9	Concentrated heavy duty particulate laundry detergent	510/324
15			US 4399048 A	19830816	11	High bulk density particulate heavy duty laundry detergent	510/323
16			US 4368134 A	19830111	11	Method for retarding gelation of bicarbonate-carbonate-zeolite-silicate crutcher slurries	510/532
17			US 4347152 A	19820831	11	Phosphate-free concentrated particulate heavy duty laundry detergent	510/356
18			US 4339335 A	19820713	13	Free flowing high bulk density particulate detergent-softener	510/331
19				19810428	13	High bulk density particulate heavy duty laundry detergent	510/323

	Current XRef	Retrieval Classif	Inventor	s	C	P	2	3	4	5
14	252/179; 252/383; 252/385; 510/326; 510/349; 510/356; 510/441; 510/443		Wixon, Harold E.	X						
15	510/324; 510/326; 510/356; 510/443; 510/507		Gangwisch, William J. et al.	×						
16	252/179		Kaeser, James A.	×						
17	23/313R; 252/179; 264/117; 510/349; 510/351; 510/441; 510/444		Wixon, Harold E.	×						
18	252/179; 510/324; 510/326; 510/441; 510/504		Wixon, Harold E.	⊠						
19	252/179; 427/220; 510/324; 510/326; 510/349; 510/356; 510/443		Gangwisch, William J. et al.							

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14	US 4411809	
15	US 4399048	
16	US 4368134	
17	US 4347152	
18	US 4339335	
19	US 4264464	

	U	1	Document ID	Issue Date	Pages	Title	Current OR
20			US 4260651 A	19810407	11	Phosphate-free concentrated particulate heavy duty laundry detergent	510/356
21			US 4248911 A	19810203	9	Concentrated heavy duty particulate laundry detergent	510/356
22			US 3971726 A	19760727	7	Process for lowering the bulk density of alkali making built synthetic detergent compositions	510/443
23			US 3962149 A	19760608	9	Non-phosphate spray dried detergents containing dicarboxylic acid salts	510/283
24			DE 3684085 G	19870422	9	Low phosphate granular detergent compsn. prepn including post-dosing spray-dried poly phosphate-contg. base powder with sodium sulphate	
25			US 4457854 A	19840703	12	Free flowing, phosphate-free heavy duty laundry detergent - comprising zeolite, carbonate, silicate base beads and absorbed nonionic detergent	

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5
20	23/313AS; 23/313R; 252/179; 252/383; 252/384; 252/385; 427/214; 427/215; 427/219; 427/220; 510/349; 510/441; 510/443; 510/507		Wixon, Harold E.	⊠						
21	427/214; 427/215; 427/220; 427/419.2; 510/324; 510/326; 510/349; 510/441; 510/443		Wixon, Harold E.	⊠						
22	510/454; 510/531	-	Smith, Jr., Frank R. et al.	×			Ö			
23	510/320; 510/351; 510/361; 510/443		Chirash, William et al.	×						
24			APPEL, P W et al.	×						
25			GANGWISCH, W J et al.	×						

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20	US 4260651	
21	US 4248911	
22	US 3971726	
23	US 3962149	
24	US 4923628	
25	US 4457854	